

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

# NOTICE OF ALLOWANCE AND FEE(S) DUE

EXAMINER 23368 7590 02/24/2004 **DINSMORE & SHOHL LLP** DAVIS, WILLIE L ONE DAYTON CENTRE, SUITE 500 PAPER NUMBER ONE SOUTH MAIN STREET **ART UNIT** DAYTON, OH 45402-2023 2877 DATE MAÎLED: 02/24/2004 APPLICATION NO. **FILING DATE** FIRST NAMED INVENTOR ATTORNEY DOCKBT NO. CONFIRMATION NO. 09/965,661 09/27/2001 SPC 0403 PA Frank Beard Douglas 3091 TITLE OF INVENTION: LASER RECEIVER USING PIN DIODE PHOTODETECTOR ELEMENTS APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional \$1330 \$300 \$1630 05/24/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS-ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450

maintenance fee notifications

Alexandria, Virginia 22313-1450 or Fax (703) 746-4000 INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks I through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block I, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 23368 7590 02/24/2004 Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below. **DINSMORE & SHOHL LLP** ONE DAYTON CENTRE, SUITE 500 ONE SOUTH MAIN STREET DAYTON, OH 45402-2023 (Depositor's name) (Signature) (Date APPLICATION NO. FIRST NAMED INVENTOR ATTORNEY DOCKET NO. FILING DATE CONFIRMATION NO 09/965,661 09/27/2001 Frank Beard Douglas SPC 0403 PA 3091 TITLE OF INVENTION: LASER RECEIVER USING PIN DIODE PHOTODETECTOR ELEMENTS APPLN. TYPE SMALL ENTITY **PUBLICATION FEE** TOTAL FEE(S) DUE ISSUE FEE DATE DUE nonprovisional NO \$1330 \$300 \$1630 05/24/2004 **EXAMINER** ART UNIT **CLASS-SUBCLASS** DAVIS, WILLIE L 2877 356-400000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single  $\ensuremath{\square}$  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent © "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer attorneys or agents. If no name is listed, no name will be printed. Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent); individual □ corporation or other private group entity □ government 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fee(s) is enclosed. ☐ Publication Fee Payment by credit card. Form PTO-2038 is attached. Q The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_ (enclose an extra copy of this form). ☐ Advance Order - # of Copies Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone

other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are requi collection of information unless it displays a valid OMB control number. ersons are required to respond to a



## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO	. F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
09/965,661		09/27/2001	Frank Beard Douglas	SPC 0403 PA	3091		
23368	7590	02/24/2004		EXAM	EXAMINER		
DINSMORE		<del></del>	DAVIS, WILLIE L				
ONE DAYTO				ART UNIT	PAPER NUMBER		
DAYTON, OF	1 45402-20	23		2877	2877		
			DATE MAILED: 02/24/2004				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 201 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 201 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

•	Application N .		Applicant(s)					
N tice of Allowability	09/965,661 DOUGLAS, FRANK BEARD			BEARD				
ii doc of Anowability	Examiner		Art Unit	j				
	Willie Davis		2877	pw				
The MAILING DATE f this communication appearance All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOS or other appropriate c IGHTS. This application	SED in this apporture of the second section in the second section section in the second section	olication. If not include will be mailed in due	ed course. THIS				
<ol> <li>This communication is responsive to 7-3-03.</li> <li>The allowed claim(s) is/are 1-22.</li> <li>The drawings filed on are accepted by the Examine</li> <li>Acknowledgment is made of a claim for foreign priority und a) All b) Some* c) None of the:</li> <li> Certified copies of the priority documents have</li> </ol>	der 35 U.S.C. § 119(a)	-(d) or (f).						
2. Certified copies of the priority documents have been received in Application No								
3. Copies of the certified copies of the priority documents have been received in this national stage application from the								
International Bureau (PCT Rule 17.2(a)).								
* Certified copies not received:								
5. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).								
(a) The translation of the foreign language provisional application has been received.								
6. Acknowledgment is made of a claim for domestic priority un	nder 35 U.S.C. §§ 120	and/or 121.						
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of  7. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which gives reas	this application. THIS	THREE-MON	ITH PERIOD IS NOT 'S AMENDMENT or N	EXTENDABLE.				
<ul> <li>8.  CORRECTED DRAWINGS must be submitted. <ul> <li>(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached</li> <li>1)  hereto or 2)  to Paper No</li> <li>(b)  including changes required by the proposed drawing correction filed, which has been approved by the Examiner.</li> <li>(c)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No</li> </ul> </li> <li>Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of</li> </ul>								
each sheet.	.84(c)) snould be writtel	n on the drawin	igs in the front (not the	back) of				
9.  DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT FOR T				lote the				
Attachment(s)								
<ul> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statements (PTO-1449), Paper No</li></ul>	4□ Into 6□ Ex	erview Summa aminer's Amer aminer's State	al Patent Application (I ary (PTO-413), Paper ndment/Comment ement of Reasons for A	No				

Application/Control Number: 09/965,661

Art Unit: 2877

### **DETAILED ACTION**

### **Drawings**

The drawings filed on 11-6-01 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action.

The correction will not be held in abeyance.

## Allowable Subject Matter

Claims 1-22 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

Regarding claims 1-22, the prior art fails to disclose or make obvious a method or apparatus for detecting the relative position of a generally horizontal reference plane of light, comprising: a weighting circuit for providing a portion of the electrical output of each photodetector element as a first reference signal related to the spacing of the photodetector element from a first end of the row, and for providing a portion of the electrical output of each photodetector element as a second reference signal related to the spacing of the photodetector element from the second end of the row and in combination with the other recited limitations of claims 1-22.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie Davis whose telephone number is 703-305-5169. The examiner can normally be reached on 9:30am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 703-308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-0956 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-7722.

\*\*\* December 18, 2003

Frank G. Font Supervisory Patent Examiner Technology Center 2800

Frank & Fort